

ABSTRACT OF THE DISCLOSURE

A circuit breaker with a thermal/magnetic trip device incorporates a monitor that senses the temperature of the bimetal and the amplitude of the load current to distinguish between a thermal and a magnetic trip. If the temperature of the bimetal is above a selected value when the circuit breaker trips, a "THERMAL" trip light emitting diode (LED) is energized, while a high load current at the time of a trip lights a "MAG" trip LED. The monitor also energizes an "ARC" LED in response to an arc fault signal from an AFCI at the time of trip, or a "GRD" LED in response to a ground fault trip. If a trip sensor, which monitors load voltage does not detect opening of the circuit breaker contacts when an arc fault or ground fault signal is generated, the corresponding LED is flashed to indicate the failure to trip. The monitor also has a "SURGE" LED to indicate a voltage surge in the protected distribution system as detected by a surge detector built into the circuit breaker. The trip and surge indications can be communicated to a remote location.